

REMARKS

In response to the outstanding Office Action, dated March 28, 2005, Applicants submit the following remarks.

Original Claim 1 has been left in original form to preserve Applicants' right to provoke an interference with U.S. Patent Application No. 2003/0220766 to Saunders et al. Applicants are currently determining whether provocation of an interference is warranted. Applicants recognize that the Examiner will likely reject claim 1 under a Final office action with respect to the Saunders reference.

Applicants have added new claims 17 - 36.

New claim 17 is patterned after original claim 1 and now defines the spring as housed at least in part of the opening of the first member. In the Saunders reference, a spring element 111 surrounds the telescoping plunger element 118 and the base supporting element 120. Thus, the spring element 111 is located outside of and exterior to the elements 118 and 120. This arrangement has a disadvantage in that the spring element 111 is susceptible to contamination and/or getting entrapped with the surrounding material of the seat bun 104, both of which can effect the reliability and performance of the spring element 111.

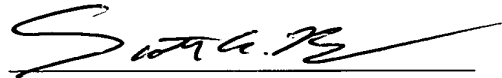
New claim 30 includes a mat and a pair of sensor assemblies each located at different positions on the mat. Each sensor assembly has a spring which biases the first and second movable members, wherein each of the springs has a spring constant different from the other. This arrangement has the advantage of being able to "tune" the mat assembly such that sensor assemblies having different spring constants can be mounted at appropriate locations for providing different signal output characteristics. For example, a sensor assembly located at a position subjected to a large force would generally bottom out unless the sensor assembly includes a spring having a relatively high spring constant. However, if a spring having the same spring constant were used in a location which is generally not subjected to a large force but rather a smaller force, such as generally along the sides of the seat cushion or at the rear of the cushion, the spring may not deflect at all, thereby possibly providing a false indication. The Saunders reference merely discloses the use of a spring element 111 having the desired characteristics of being predictable over a

long lifetime, and having a spring constant that is of sufficient force to restore the plunger element 118 to its full height with respect to base support element 120, as discussed in paragraph 37 of the Saunders reference. The Saunders reference further states that if seat materials are developed that have consistent spring-back properties over the expected life of the system and vehicle, then it is possible that the separate spring element 11 could be eliminated from the sensor 108, as also discussed at paragraph 0037.

New claim 34 is similar to claim 30 with an exception that each of the sensor assemblies include a magnet mounted on one of the first and second members such that the gauss characteristic of one magnet is different from the gauss characteristic of the other, thereby providing different signal output characteristics for each of the sensor assemblies.

Any fees due in connection with this Amendment should be charged to Deposit Account No. 13-0005.

Respectfully submitted,



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